REMARKS

Claims 1-7, 9-21 and 23-28 are pending in the application.

Claims 1-7, 9-21 and 23-28 have been rejected.

Claims 1, 4-6 and 9-15 have been amended as set forth herein.

Claims 1-7, 9-21 and 23-28 remain pending in this application.

Reconsideration of the claims is respectfully requested.

I. CLAIM REJECTIONS -- 35 U.S.C. § 103

Claims 1-3, 6-7, 9-10, 13-17, 20-21, 23-24, 27 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,094,715 to *Wilkinson, et al.* (hereinafter "Wilkinson") in view of U.S. Patent No. 4,435,758 to *Lorie, et al.* (hereinafter "Lorie"), and further in view of U.S. Patent No. 6,823,517 to *Kalman* (hereinafter, "Kalman"). Claims 4, 5, 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilkinson in view of Lorie, and further in view of Kalman, as applied to claims 1 and 15 above, and in view of U.S. Patent No. 6,470,441 to *Pechanek, et al.* (hereinafter "Pechanek"). Claims 11, 12, 25 and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilkinson in view of Lorie, and further in view of Kalman, as applied to claims 1 and 15 above, and in view of "Multi-thread VLIW processor architecture for HDTV decoding" to *Hansoo Kim* (hereinafter "Kim"). The Applicant respectfully traverses the rejections.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a prima facie case of obviousness. MPEP § 2142, p. 2100-133 (8th ed. rev. 4, October

2005). Absent such a prima facie case, the applicant is under no obligation to produce evidence of nonobviousness. *Id.* To establish a *prima facie* case of obviousness, three basic criteria must be met: *Id.* First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *Id.* Second, there must be a reasonable expectation of success. *Id.* Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *Id.*

Amended independent Claim 1 recites:

> 1. An apparatus for executing at least one single program multiple data (SPMD) program, said apparatus comprising:
> a micro single instruction multiple data (SIMD) unit associated with a microprocessor; and
> a job buffer having an output coupled to an input of said micro SIMD unit,
> wherein said job buffer is configured to:
> at runtime, compare a job status of a plurality of jobs;
> dynamically bundle a subset of said plurality of jobs into a task based on on said comparison; and
> allocate said task to said micro SIMD unit, and
> wherein said job status comprises a program counter value and a loop-counter list, and wherein a job is a combination of a program and an input data-set.

That is, a job buffer compares a job status (comprising a program counter value and a loop-counter list) of a plurality of jobs at runtime and, based upon the comparison, dynamically bundles a subset of the plurality of jobs into a task. The Applicant respectfully submits that the cited references do not describe such a job buffer.

First, the Office Action asserts that the broadcast and control interface (BCI) in Wilkinson's processor memory element (PME) describes a job buffer. The BCI buffers individual instructions and data items for broadcast to PMEs. *See col. 24, lines 9-16 and 35-55.* On page 27, lines 14-15, of the Specification, a job is defined as a combination of a program and an input data-set. Thus, the Applicant respectfully submits that a person of skill in the art would not understand Wilkinson's BCI buffer for individual instructions and data words as teaching a buffer for jobs, as taught in the present application.

Second, the Office Action asserts that Wilkinson teaches a job status comprising a program counter value and a loop-counter list, wherein a job is a combination of a program and an input data-set, citing column 24, lines 9-17 and 34-47; column 26, lines 6-21; column 27, lines 6-21; column 29, lines 44-52; column 33, line 51, through column 34, line 7; and column 39, lines 60-65. The Applicant notes that all references in the cited passages to a program counter are related to the PME operating in MIMD mode. In fact, when discussing the memory of the PME, Wilkinson makes clear that in SIMD mode all the PME memory is used for data. *See col. 29, lines 8-12.* As such, a person of skill in the art would not find in Wilkinson a teaching of a job status comprising a program counter value in the context of a job buffer that compares a job status (comprising a program counter value and a loop-counter list) of a plurality of jobs at runtime and, based upon the comparison, dynamically bundles a subset of the plurality of jobs into a task.

Third, the Office Action acknowledges that Wilkinson does not teach a job buffer dynamically bundling jobs into a task based on an equivalence of a job status of the jobs and allocating said task to a SIMD unit. However, the Office Action asserts that Lorie teaches such

dynamic bundling in column 1, lines 32-45. The cited passage teaches that, prior to execution, streams of straight line code may be recognized in a task and a special purpose operating system used to group, load relevant data, start and stop such streams of code.

The Applicant submits that such preprocessing of tasks into blocks of code prior to execution does not teach a person of skill in the art the recited job buffer that dynamically bundles jobs at runtime into tasks based on an equivalence of a job status of the jobs. The teaching of Lorie is in the context of a system that operates differently than the apparatus of Claim 1 and, therefore, a person of skill in the art would have neither motivation nor expectation of success in applying the teaching of Lorie to the system of Wilkinson, as proposed by the Office Action.

As such, Wilkinson, Lorie and Kalman fail to describe all the elements of Claim 1. Further, a person of skill in the art would have neither motivation nor reasonable expectation of success in combining the references as proposed by the Office Action. For at least these reasons, independent Claim 1 is patentable over the cited references. Independent Claim 15 recites elements analogous to the novel and non-obvious elements of Claim 1 and, therefore, also is patentable over the cited references.

The Applicant submits that neither Pechanek nor Kim does anything to overcome the shortcomings of Wilkinson, Lorie and Kalman. Claims 2-6 and 9-14 depend from Claim 1, Claims 16-21 and 23-28 depend from Claim 15, and each includes all the elements of its respective base claim. Therefore, Claims 2-6, 9-14, 16-21 and 23-28 are patentable over the cited references.

Accordingly, the Applicant respectfully requests that the Examiner withdraw the § 103 rejection with respect to Claims 1-7, 9-21 and 23-28.

CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining claims in the Application are in condition for allowance, and respectfully requests an early allowance of such claims.

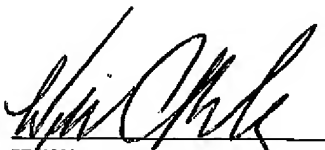
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at ***wmunck@munckcarter.com.***

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK CARTER, LLP

Date: Feb 18, 2010



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